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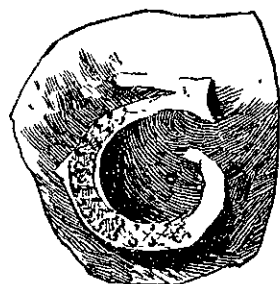
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THE season for out-of-door athletics is again at hand, and it remains to be decided whether the Institute shall be well represented on the diamond this year, or not. Let us take a glance over the field and see what our prospects are. To begin with, we have the same manager and the same battery as last year. These two things are a host in themselves. All of last year's players are well used to the ways of the manager, and the new players can be easily trained to them. The battery has shown much improvement over its work of last year in the practice-work at the gymnasium, and much of our success will depend on their efforts. Several of last year's nine remain, besides, and the Freshmen have shown some good material, by the work of their nine last fall. With this outlook, and the secretary's list showing twenty-two candidates, it seems as though we must surely succeed in having a ball nine which should bring credit to the Institute. We have, indeed, everything requisite, so far as the men go, for a good nine; but we must not over-

look the matter of financial support. We have no practice-ground which belongs to the Institute, and if we want one, as we surely do, we must rent it. This expense is a considerable one, but it is most necessary. Next comes the matter of uniforms. Those of last year saw their best days two years ago, and we don't want our nine to appear in the field in mixed array, as was the case in some of our games of last year. Traveling expenses come next, and this expense is also a large one. These expenses can only be borne by subscription, and we sincerely hope that the coin assistance will be forthcoming. As a general thing the money is given by a few personal friends of the team; but let this not be,—let us all unite for the *object*, and the nine will work in a much more whole-hearted manner if they feel they have the support of the whole Institute, than of only a few.

ONE of the most healthful, fascinating, and deservedly popular sports of the day is lawn tennis. Brought to the notice of the youth of the country within the last five years, it was quickly taken up, and now, wherever there is any one young and active enough to enjoy the sport, there is a tennis court. At all colleges and seminaries space is set apart for the game, and the courts are in constant use; but it is a trite saying that there are exceptions to every rule, and, as usual, the Institute is one of the exceptions.

Between the Rogers' and new buildings is a plot of land which can never be built upon, plenty large enough for four courts. We ask, "Why cannot we have the use of it?" In reply, three reasons are given for not granting this:—

First: It would spoil the looks of the lawn. Let us admit that it might, for the time being,

make the grass look a little the worse for the wear. All the playing would cease before the severe heat of the summer began, and during the four months of vacation the grass would have plenty of time to recover. The two months of playing in the fall would probably not injure the turf materially.

Second: It is said that tennis between the two buildings would take the attention of the students from their work. The physical and mechanical laboratories are the only two rooms which command a good view of the land, unless students are standing at the windows, and our work is generally supposed to be interesting enough to occupy the attention of everybody.

Third: It would tempt the fellows to cut recitations. So it would, and probably some would yield to the temptation, but the proportion of this class would be very small. There are many who have an hour between recitations which could much better be used at lawn tennis than by playing pool in the "chapel," smoking on the steps, or even pretending to study in the "reading-room."

By all means let us have the ground between the two buildings for tennis

CONSTANT practice has had its usual effect on the playing of our orchestra, and all who attended their party were agreeably surprised by the proficiency of our amateur musicians. Both then and since, it has frequently been suggested that the managers of future afternoon parties should employ the orchestra to provide the music, thus supporting an organization which is already a credit to our institution, and encouraging home talent, without extra expense to themselves. This suggestion merits most favorable consideration. The principal objection has already been met by the recent performance of the orchestra, which, it is stated by those best qualified to judge, through giving the players more confidence in their own abilities, insures still better results at a second affair of the same nature; while an argument in its favor, is its tendency to make such an afternoon party more of a regular Institute

entertainment, and less of a somewhat speculative enterprise by a half dozen or so individuals.

PRESIDENT WALKER'S words have not fallen on barren ground; '87, having learned that "capital arises solely out of saving," has taken initiatory steps toward the formation of a co-operative society. Societies similar to the one proposed flourish at Harvard and Yale, and the students at such a practical and progressive place as the Institute should be quick to appreciate the advantages to be derived from such an organization. Not only would the members of the society get articles at a discount—they would be more sure to get good articles, as reliable firms only would appear on the society's lists. The movers in this scheme for the general benefit should have the approval and aid of all.

THE *Tuftsian* suggests that a convention of the college editors of New England, should be held in some convenient place, such as Boston.

The suggestion seems to us a good one. As the *Tuftsian* says, "It would promote good fellowship and mutual understanding among the editors of the different papers." It would also, doubtless, be valuable for the editors to become acquainted with each other, and to exchange views in regard to the management of the college papers.

An intercollegiate press association was formed three years ago, but died prematurely, largely on account of the fact, if we remember correctly, that papers had to attain a certain degree of excellence before eligible for admission.

WE regret to be obliged to chronicle the resignation of Prof. Vose from the Institute. In him it will lose a valuable man, whom it will find difficult to replace. He has always been a kind friend of THE TECH, and to him we are indebted for many favors in the past. Prof. Vose has left the Institute with the respect and best wishes of all the classes which have studied under him.

Love, Sweet Love.

O Love, sweet Love is a welcome guest,
In the hearts of the bold and the brave;
But he stays not long in the changeful breast
Of a lovely and wayward maid.
For though she vows, at the parting hour,
That she 'll be true as the heavens above,
Yet soon she 'll forget both her sighs and vows
In the joys of another love.

'Tis true that a gentle maid will blush, —
Yea, blush like a faint rose leaf, —
But her love for you will have a life
Like the beautiful rose-bud, — brief!
And if she vows by the stars on high
That no change her heart shall know,
Soon will you find, when the stars shall pale,
That her love had a briefer glow.

W.



Fire-Setting.

THE department of mining recently secured for its library a copy of Agricola's "De Re Metallica," bound in vellum, and bearing the date 1567. The subjects of which the work treats are mining, metallurgy, and the allied sciences, and hence it is valuable, not only in a bibliographical, but also in an historical and scientific view. The book is still more interesting on account of the quaint and curious wood-cuts with which it is illustrated.

Georg Agricola, — originally, Landmann —

was born at Glauchau, in Saxony, in 1494. He studied at Leipsic and in Italy, and afterward practiced for some time as a physician at Joachimsthal, in Bohemia. Having been appointed professor of chemistry, he removed to Chemnitz, which was situated in a mining district of Saxony, and was here able to gratify his natural inclination toward the study of geology and mineralogy. It was he who raised mineralogy to the dignity of a science; and so completely did he develop it, that, practically, no advance was made upon his work until after the middle of the eighteenth

century. The results of his investigations he recorded in "De Re Metallica," first published in 1546; and here he minutely describes the methods of mining of that day, the methods of raising the ore, of dressing it, of smelting, assaying, surveying, etc.

In turning over the pages of this book, it is curious to note how very like, in many respects, the methods of to-day are to those of three and four hundred years ago. The crucibles, cupels, and scorifiers used in assaying, are almost identical with those of to-day, and the balances for weighing the buttons, though clumsy, embody the principles of our modern balance. The primitive hand-jig used then is still used in Cornwall and other places. Pumps, furnaces, even the surveying instruments, contain the rudiments of those which are employed at the present time. In sinking shafts and driving tunnels, however, the miner of the olden time was probably more primitive than in any other particular, and the methods used were so laborious that what they really accomplished seems all the more wonderful.

Rock-drills and dynamite were not dreamed of then, nor even drilling by hand and blasting with gunpowder; for though the latter was invented in 1320, it was not used for mining until 1613. So the only tools at the disposal of the miner then, were the hammer, the pick, and the gad. The latter was, or rather is, for it is even now in use, a pointed wedge, which is sometimes provided with a handle like a pick.

The method of operation consisted in inserting the point of the gad in crevices in the rock, striking with the hammer, and in this way dislodging fragments of rock. Of course it was not difficult as long as the rock was soft, slaty, or intersected by cracks and joint-structure, so that it could be easily disintegrated.

When, however, the rock was tough, compact, and had no crevices or cracks where the gad could be inserted, then the miner of four centuries ago was obliged to make them; this he did by a peculiar and laborious system called "fire-setting."

Every one knows, how, when a fire has been

built against a rock, fragments are split off by the heat. It was upon this principle that fire-setting depended. A large pile of wood was built against the face of the rock which was to be removed. The wood having been ignited, the miners left the mine until it had nearly burned out; then, re-entering, they threw cold water against the hot rock, cracking it in all directions.

When the air of the mine had cooled off and become fit for men to work in, they went at the cracked rock with pick and gad, and repeated the whole operation when the loosened portions had been dislodged, and solid rock was again reached.

The difficulties which were fought against in the use of this system, are a great testimony to the perseverance of the ancient miner. The progress of the work would have been intolerably slow in these days. The smoke and gases from the fire, confined underground, produced, of course, a frightfully vitiated atmosphere, and the noxiousness of this was increased if the ore happened to contain arsenic, antimony, sulphur, or other volatile substances.

The only means of ventilation were to have a couple of men wave a cloth over the mouth of the shaft, or else a ventilator constructed from a barrel—upon the same principle as a wind-sail—was used. In ancient times slaves and captives were compelled to work in mines, and horrible stories are told of their sufferings.

This system of fire-setting is a very ancient one, and was for many centuries the only method of extracting ore from the solid rock. Diodorus, in an account of mining operations in ancient Egypt and Ethiopia, speaks of its employment, and Pliny and Livy also mention it. It is said that fire-setting was used in Japan, for driving long tunnels, to within very recent times; and the ancient copper pits at Isle Royale, in the Lake Superior region, contain heaps of charred wood, and furnish other evidence that the same method was practiced by the pre-historic people of this Continent.

W. R. I.

En Grande Tenue.

We sat together over ices cool,—
 And Love seemed playing on her rosy cheek;
 Blind Cupid led me on to play the fool,
 I pressed my suit with honeyed words so meek.
 A violent thrill perturbed her graceful frame!
 Could answer to my love thus be expressed?
 * * * * *
 Ah, no—deceived! The maid I could not blame;
 She'd dropped some sherbet on her snow-white breast.

J. E. S.

Tom Triangle; or, Love and Geometry.

MY chum at college was Tom Triangle. He was a clever fellow, though perhaps more given to theaters and other methods of having a good time than to long hours of study. Often as I sit musing in my study, do the merry hours come back—not like things dead, but fresh and breathing; and I can see the pleasant faces and hear the uproarious laughter of my companions through the fragrant smoke of Havanas, and oftentimes shining through the smoke I can perceive the face of some professor or tutor gleaming with immortal indignation.

Tom was a good-natured fellow as a rule, but “*nemo sine vitiis*,” there was one exception to his good humor; he would permit no jokes on his name. His name was, in fact, rather unfortunate, and as one of his friends remarked to me once, “it neither looked well written, nor sounded well spoken, and was altogether such a nuisance to its owner that he wished it almost anything else.” Tom didn’t mind any other sort of jokes on himself, but his name was evidently a sore subject with him,—why, no one knew. This humor of his was usually respected, as he was well liked.

One day, however, a classmate more waggish than wise, said,—

“Tom, I’ve a problem for you.”

“State it,” said Tom.

“If the angles of a right triangle are equal to two right angles, what are the angles of a Tom Triangle equal to?”

“Sir,” replied my chum, “if you must push your investigations so far beyond the books, I’ll demonstrate a Tom Triangle to you.”

This Tom immediately proceeded to do, and

when he had finished, his unfortunate classmate looked as if a tornado had struck him instead of only a few of the angles of a Tom Triangle.

Every two or three weeks I noticed that Tom grew very gloomy and abstracted, sighed, and muttered indistinctly of destiny, and read Ovid de Arte Amandi et Remedio Amoris. I suspected him. He said hard things of women in general. My suspicions were confirmed. Tom had been struck by the arrows of love. I determined to probe him.

“Tom,” said I one evening, as he was lying stretched out in an easy-chair, lazily watching the smoke curl up in blue rings from his pipe, “Tom, have you ever been in love?”

Tom said nothing, but his pipe glowed brightly, and he gazed fiercely at the ceiling.

“My dear fellow,” said I, not seeming to notice the threatening storm, “were you ever in love?”

“Yes,” cried he, starting up like a shell from a mortar, and upsetting a chair on my pet corn.

“Heavens! What is the meaning of this!” exclaimed I, rejoiced at my good shot, though suffering acutely in my foot.

“Confound the sex!” cried Tom, stalking across the floor.

“Calm yourself, my dear fellow, and let us know about it. It will relieve you greatly to share your sorrows with a sympathizing friend.”

“It’s a villainous world,” said Tom, “and women have made it such.”

“Heaven help you, Tom; you must be losing your senses to utter such treason against beauty and loveliness.”

“All nonsense. Eve put her foot in it in the Garden of Eden, and since then all the rest of the sex have followed her example.”

“Well, come, and tell me all about it.”

“Be it so, then. I confess Ned, I *was* a little excited. Your random shot struck,” said Tom, with his hand on his heart.

“Oh, pooh! Laugh off your sorrows; be a philosopher; but let’s have your story. What impertinent jade has thrown cold water on the fire of love, and raised such a smoke in the kitchen?”

"Ned, please pass me those cigars."

Tom lit a cigar, smoked awhile, looked foolish, and began.

"My love began like this cigar, in fire, and ended, as *it* will, in smoke."

"Bah! don't get too sentimental, Tom; stick to facts."

"Permit me, Ned,—take your own advice of a moment ago. Calm yourself."

"A hit, Tom! a hit! but proceed."

"Before entering college I was, as you know, a teacher in a village school. To this school came both boys and girls; and among the latter was a young girl named Lizzie Temple. She was seventeen, overflowing with life and merriment, and with a tall and beautiful figure. Her fingers were toothpicks for Apollo, her nose and forehead Grecian, and her face full of expression,—a little wicked, too, sometimes,—and slightly brunette in complexion. Her hair fell in thick, jetty ringlets upon her neck and shoulders, like a beautiful drapery furnished by the gods, for charms that, fully seen, might drive men to madness; her eyes were black and voluptuous; and her lips—oh!—in their rosy labyrinth, when she smiled, the soul was lost."

"Take a glass of water, Tom."

"Ned, be quiet."

"Pardon me, Tom, but I thought the suggestion opportune."

"Well, Ned, I loved her madly, and I had a terribly hard time in keeping the other pupils from finding it out. My position would have been unbearable if they had suspected anything. In my opinion a man who could conceal his feelings to the extent I did mine, has in him the elements of a Talleyrand. To add to my trials I was not the only one in love with her. One of the boys, a good-looking, black-eyed rascal of eighteen was in love with her also. I shall never forget the feeling of extreme satisfaction I felt one day after I had flogged him for some trifling omission of duty. Of course I felt great interest in Lizzie's progress, and was often at her desk, leaning over her shoulder, with my face almost in contact with her lovely lips, apparently to examine her writing, or to demon-

strate some problem in geometry. The Temples, her parents, were most polite to me, and often asked me to tea. Her father, old Temple, was a clever old man of the New England farmer type, and very shrewd. I went frequently to his house and spent the evening, drank his cider, praised his apples, and discussed the weather and the neighborhood's quarrels with him till the old fellow fell asleep, when I enjoyed myself with Lizzie.

"It was with feelings of the greatest joy that I viewed the slow approach of the end of the term, for then I would be relieved of my fear of the scholars, and would be able to speak. How I counted the days, and watched their slow advance. But at last the end came, and I was free.

"Two evenings after the close of the term I took a walk with Lizzie through the village into the park, and there, beneath the stars and sweet moonlight, I told the story of my love. At last I ventured the ugly question."

Here Tom's voice grew husky, and he paused for a moment, gazing in profound silence at his boots. Suddenly he turned to me, and said:—

"What do you think her reply was, Ned?"

"Really, Tom, I can't imagine; too young, maybe, or perhaps she would like to see some more goods before purchasing."

"No, Ned; you couldn't guess—no man could. It was an outrage, and an unwomanly cruelty to me. She said, with a heartless laugh, that she had never cared for *geometry*, and thought it would be exceedingly dull to be all one's life demonstrating *Triangles*.

"The next morning I found myself in bed. I never knew how I got there. There was a panel knocked out of the door, a broken chair in the middle of the room, and my dress-coat hanging on the candle as an extinguisher! Three months afterward she became engaged to the young scoundrel whom I had flogged so soundly for loving her."

"Ha, ha, ha! Forgive me, Tom, for—ha, ha, ha, ha!"

W.

A striking attitude—Pugilistic pose.

Love's Logic.

You ask me, my dear, in your innocent way,
Whether, from what I have seen, I should say
Your soft eyes are *green* or are *blue*?
For in green eyes, you premised, sly coquetry dwells,
While the bonny blue eye ever certainly tells
Of tenderness trusting and true.

Now, love, pray remember, although I have seen
In those orbs quite perceptible sparkles of green,
That some one is writing to you,
Whose whole heaven lies in the light of your eyes,
More constant and clear than the sheen of the skies,
And the color of heaven is blue!

The Glee Club Concert at Revere.

The Glee Club went to Revere, March 23d, and gave a concert for the benefit of the Vestry Fund, Unitarian Society. The first song, "Queen of Hearts," was very well done, being effective in tone and shading, and showing drill and understanding. The "Spanish Cavalier" was next, and this showed lack of practice. "Massa" was fairly done, but the soloist, Mr. Whitney, was a little too slow, and the piece, therefore, dragged. The "Merle and the Maiden" was very well sung. Mr. Warren's banjo solo well deserved the encore which it obtained. "Ching a Ling," with Mr. Stewart's solo voice, Mr. Thompson's whistling, and Mr. Shortall's banjo accompaniment, also deservedly won an encore. "Student's Song," with solo by Mr. Marsh, was very satisfactory, both in solo and chorus. This ended Part I. Part II. opened with "Der Klein Recruct," which was sung with spirit, in time and tune; repeated, on encore. Owing to the illness of Mr. Sprague, the "Calliope" was omitted, and the well-known "Peter Gray" substituted, Mr. Whitney singing the solo. The song itself was perhaps well enough executed, but its whole beauty was lost by the absurdity of the same "gags" which characterized its performance of last year, and which we hope will be done away with in future. On an encore, "I've Lost My Doggy" was given to the satisfaction of all. The "Moustache Song," solo by Mr. Shortall, was well executed, but a change of words to those of "Wake! Freshmen, Wake!" would, we think, be more palatable. "Nelly

was a Lady," was very sweetly sung by Mr. Cobb, and the chorus also sang as though they enjoyed it. This was one of the prettiest songs of the evening. The "Volk Song" was also well rendered. The "Tale of Woe," a pathetic ballad of the Charles Lamb variety, was well sung, very laughable, and encored. The "Uralio Yœdel" came next,—always a favorite, almost always well sung, and particularly well done by Mr. Thompson and the Club. On an encore, a Yœdel duet was given by Messrs. Thompson and Shortall, which was also well received. The programme ended with Mendelssohn's well-known "Vintage Song," which completed a very attractive concert. The Club and its leader, Mr. Underhill, deserve great credit for the success of the concert, and Mr. Fay, who presided at the piano, was accurate, prompt, and inspiring in his support.

The Senior Class Dinner.

ON Friday evening, March 26th, the Seniors met at Young's Hotel for their fourth annual class dinner. The attendance was not so large as was expected—only about forty, including several ex-members of the class, being present. After waiting for tardy members, the company proceeded to the dining-room, and, without further delay, began work. The *menus* were tied with cardinal and gray ribbons, and, on the cover, bore a tasty design from the pen of Mr. Woodbury. After the practical exercises of the evening had been finished, the president arose and introduced Mr. Simpson as master of ceremonies. The latter began by reading a list of punishments to fit the various crimes which are not infrequently committed on such an occasion. The severest punishment was, that any one who in speaking of THE TECH should work off the chestnut, "*Now is the time to subscribe*," should be compelled to read Henry James' novel, "The Bostonians." This punishment was considered by the committee to be worse than death.

The first toast was "The Faculty," Mr. Anthony, from "Utah," responding with a dignified

and classic oration. Mr. Locke then answered for '86, Mr. Stickney for the "Civils," Mr. Borden for the "Mechanicals." Mr. Ingalls replied for the "Miners" with a poem, and Mr. Low did likewise for the "Chemists," and Messrs. Stebbins and Smith spoke for the "Electricals" and "General Course," respectively. As a relief from the flood of eloquence with which the company had been deluged, Mr. Low sang a song of the Institute offenders whom he had on the list, and was much applauded. The remaining toasts were: "Ex-members," Mr. J. G. Howard; "THE TECH," Mr. Taylor; "Athletics," Mr. Wood; "The Ladies," Mr. Leach, who replied in his usual felicitous manner; and "Base-ball," Mr. Brainerd. The toastmaster then read a dramatic and exciting poem, entitled "Jim Smith and His Dog," which was extremely realistic.

The following class-day officers were elected: Historian, Mr. Simpson; Poet, Mr. Cutter; Prophet, Mr. Ingalls.

The final event of the evening was the awarding of the class spoon. This was an immense affair, being a large wooden scoop-shovel, appropriately decorated. Previous to the dinner the betting upon the winner had waged high and furiously. Mr. Farmer, the champion of 1885, was the favorite at first, but his supporters hedged upon hearing that had not fully recovered from the effects of last year's contest. Odds were then given freely upon Mr. Lynde, until it was discovered that he was not to be present. The result of the contest was a tie, and the committee recommended a deciding h-eat. This decision, however, was reversed by the class, and the spoon awarded unanimously to the President.

Shortly after midnight the company adjourned, much pleased at the success of their last class dinner.

The Sophomore Dinner.

THE Class of '88 held its second annual dinner at the Quincy House, March 25, 1886. Each man's seat was designated by a tastefully

illustrated card bearing his name, the design on which was furnished by Mr. H. G. Hodgkins. The *menu* cards were very prettily gotten up, and also contained the names of the class officers for 1886, and a list of the toasts, which were as follows: "The Class," A. T. Bradlee; "The Pin," G. U. G. Holman; "Our Graduates," D. M. Blair; "Athletics," R. Devens; "Society of '88," G. C. Dempsey; "The Cycling Club," F. J. Wood; "The Baby," H. C. Moore; "The Faculty," J. T. Greeley; "'87," A. S. Warren; "The Fraternities," J. V. Wright; "The Courses," H. J. Horn; "The Ladies," F. L. V. Hoppin. The whole affair passed off most successfully, and every one was well pleased with the work of the Supper Committee. During the course of the evening it was voted to send a *menu* and a copy of the Class Song to Mr. F. W. Hoadley, '88, who is at present engaged in the romantic occupation of herding Italians on a new railroad which is being built in Wisconsin. Interspersed between the toasts were singing by the '88 double quartette, solos by Mr. Underhill, violin solo by Mr. Jones, and piano solos by Mr. Cheney and Mr. Fay. Mr. Fukuzawa read a paper on "A Dinner Party in Japan," which was well appreciated. The spoon was awarded to Mr. Cheney, who accepted it amid great applause, and made a neat speech of thanks. The evening was finished by the singing of the Class Song, which was composed by Messrs. Hoppin and Warren.

The Freshman Dinner.

THE Class of '89 held its annual dinner at the Parker House, Friday evening, March 26th. The following toasts were responded to, Mr. Bardwell acting as toastmaster:—

"Tug-of-war Team," Mr. Amory; "Athletics of '89," Mr. Cheney; "C. C. M. I. T.," Major Fiske; "The Faculty," Mr. La Rose; "The Ladies," Mr. Basford; "City of Boston," Mr. Brown; "Boston Girls," Mr. Hawkins; "Rats," Mr. Badger.

Silver cups commemorative of '89's victory



Minister (making his parish call upon a newly arrived parishioner): "SO, THIS IS LITTLE JOHNNY, IS IT? WELL, HOW IS LITTLE JOHNNY, TO-DAY?"

Little Johnny: "OH, SIR, WELL ENOUGH. ARE YOU THE MAN MA SAID PREACHED SUCH AN AWFUL LONG SERMON YESTERDAY?"

New Parishioner: "OH, SIR, DON'T MIND HIM, PLEASE! YOU KNOW THE OLD ADAGE, 'FOOLS AND CHILDREN SPEAK THE'—ER—ER—CHILDREN DO SAY SUCH OUTRAGEOUS THINGS."

over Harvard '88's, were presented to the tug-of-war team, after the first toast.

After the toasts, Messrs. Kendrick and Kaufman entertained the class in an enjoyable manner with a banjo duet.

A piano solo was then rendered by Mr. Kendrick, and Mr. La Rose sung "A Tale of Woe" with great applause, after which he was presented with "the spoon."

The class song, written by Mr. Wales, was then sung; and after passing a vote of thanks to the committee, the class broke up, having spent a most enjoyable evening.

Bowdoin will send a crew to compete in the intercollegiate race this year.

Noticeable Articles.

The *Fortnightly* for March contains a very interesting account of that remarkable Anglo-Italian family of genius, the Rossettis. The poet-patriot father, Gabriele Rossetti, was born in the Abruzzi district of the old Kingdom of Naples, and would have fallen a victim to the vengeance of the infamous tyrant, King Ferdinand, in 1821, if he had not been rescued by the English Admiral Moore, then stationed in the Bay of Naples, and helped to flee to England. Here were born his four remarkable children: Maria Francesca, author of the "Shadow of Dante;" Dante Gabriele; the pre-Raphaelite painter-poet; William Michael, editor and art-critic, and author of, "on the whole, the most satisfactory English version of Dante's great work;" and Christina, whose beautiful verses have

had as wide a circulation in this country as in England. Whoever would make acquaintance with the greatest of Italian poets, and one of the greatest poets of the world, cannot do better than possess himself of Maria Rossetti's "Shadow of Dante," and her brother's translation.

The paper in the *Fortnightly* on the Eastern Question is composed of two parts. The first, entitled, "What is Greece?" contains a most unfavorable account of that once glorious little country. About one third the size of England, or less than two and a half times the size of Massachusetts, it contains, according to this account, "about a million and a quarter of degenerate inhabitants," one twelfth of whom are fed by the State, including sixteen archbishops, seventeen bishops, and twenty thousand Greek papas, or priests. "In the Greece of to-day, one hungry mob, idle and out of employment, watches a rival mob enjoying prosperity while it can upon the loaves and fishes of official existence." "Why" says this writer, "should European peace be forever disturbed because where Demosthenes once was eloquent, M. Delyanni, a name which, in modern Greek, means Mad John, now blusters?" It is preposterous, and would be laughable were it not blinding us to a much more serious aspect of the Eastern Question. So surely as the Slavs of Southern Europe are awakening to the ambitious projects of their great Slav protector, so surely is Russia progressing toward Constantinople. Whatever events can retard that progress it is not the idle cry of the feeble Greek that will postpone the fatal day. There is an energy in the Slav, and a purpose on the part of Russia, which the Greek can not cope with. Let us hear no more of Greece:

"'Tis Greece, but living Greece no more."

The other paper is on Turkey and Macedonia, which, even under the present faulty administration, is "one of the richest provinces of the Turkish Empire." It proposes a peaceful solution of the Eastern difficulty which does not seem very likely to be realized. A curious factor in the question is "the furious jealousy with which the Greek and Bulgarian Churches regard each other," though they are both only branches of the Eastern Church.

Macmillan's for February has got hold, in some remarkable way (through *spirits*, perhaps), of a chapter from Prof. Boscher's "Post-Christian Mythology" (which will not appear entire till the year 3886) on the "Great Gladstone Myth," in which it is conclusively proved that the name Gladstone is only one of the

many mythological denominations of the sun, as against the theory that he was an actual hero of the Fourth (Hanoverian) Dynasty,—a doctrine which it seems some shallow people put forth. In this latter capacity, as a real person, this remarkable professor says "he has been identified with Gordon (probably the north wind), with Spurgeon, whom I have elsewhere shown to be a river-god, and with Livingstone. In the last case the identity of the suffix "stone," and the resemblance of the ideas of "joy" and of "vitality," lend some air of speciousness to a fundamental error. Livingstone is *ohne zweifel* a form (like Cox) of the midnight sun, now fabled to wander in the "Dark Continent," now alluded to as lost in the cloudland of comparative mythology. The remarkable stone found near Bath inscribed G. O. M., affords strong corroborative evidence of the professor's theory. It has indeed been interpreted by shallow writers as meaning "Grand Old Man," and by others as "90 Miles," and it cannot be denied that it is that distance from London; but the professor shows conclusively that it is a votive offering to *Gladstonio Optimo Maximo*, the great sun-deity of the ancient British mythology.

Readers of that entertaining book, "Custom and Myth," will be inclined to say, after the perusal of this paper, *aut Andrew Lang, aut diabolus*, and the hit is good against some of the extravagances of Sir George Cox. Nevertheless, the solar theory, though not a key to all the riddles of mythology, does explain most satisfactorily a great many of them.

W. P. A.

The *Berichte der Deutschen Chem. Gesellschaft*, Nvo. 3, 1886, contains an article by Clemens Winkler, announcing the discovery of a new element—germanium. The element resembles arsenic and antimony, and appears to occur in the recently named mineral "Argyrodite," as germanide of silver. A determination of the atomic weight will at once be undertaken, in order to see whether it falls into the gap which in Mendelejeff's scheme lies between antimony and bismuth.

The *Journal of the Society of Chemical Industry* for February 27, 1886, contains an interesting article on a new sweetening agent, two hundred and thirty times sweeter than cane-sugar, derived from coal-tar. The compound may be called benzoyl sulphonic imide, or, if preferred, by the commercial name "saccharine;" it is a prospective ingredient of confectionery, pure fruit jellies, and other sweets.

W. R. N.

Technics.

First Industrial Chemist. — "You ought to like match-dyeing."

Second do. (who is an habitual gambler), suspiciously. — "Why?"

First. — "Because you will probably die matching."

Lives of all our worthy Profs. remind us
Most of them were at the M. I. T.,
And, like us, barked shins and mangled trousers,
Swarming up the trunk of Wisdom's tree.

If we manage to get through as they did,
And obtain the coveted degree,
How we'll sit, on lower boughs paraded,
Swinging heels with like complacency.

THE chemist who always uses abbreviations, is said to have directed a letter to "H₂O-town, Mass.," the other day, and never understood why it did not reach its destination.

AFTER THE DINNERS.

Oh, what a deuced horrid head-
Ache! This thing really can't be borne;
It's no use tossing here in bed;
I must get up and take a Seid-
Litz powder, or a horn!

Those punches must have been a *dem*
Sight stronger than my usual cup;
And yet, I drank but few of them.
It must have been that cursèd lem-
Onade that used me up!

I won't go on another "bat,"
And use my dress-coat for a mat.
I'll throw away this banged-up hat,
And cut the "rosy" most emphat-
Ically dead,—perhaps. w.

Freshman. — "What does P. P. C. mean?"

Chum. — "'To take leave.'"

Fresh. — "Who ever heard of a man with P's and C's taking leave. It ought to be 'F. F. D.' — 'For frantic departure.'"

Professor: "What is the nature of the action when potassium is dropped into water?"

Intelligent freshman: "The potassium is *discomposed!*"

AFTER THE EXAMINATION.—*1st. Fresh:* "Well, how do you find yourself?"

2d. Fresh: "In bad condition."

HOW THEY DO IT.—*Unlucky student (who has just broken an evaporating dish):* "Are you sure this is an 18-inch dish, Mr.—?"

Assistant: "Well, its the largest size, anyway."

Instructor: "How did you translate *billet-doux*?"

Freshman: "A letter with a two-cent stamp on it."

ANOTHER VICTORY.—A merchant, walking home, one night, through a dark forest, was met by a highwayman, who, aiming a revolver at his head, exclaimed, "Your money, or your life." The money was promptly handed over, and another victory was scored for "arbitration."



MALICIOUS.

"SEE, SAMUEL, HOW BEAUTIFUL THE FLOWERS ARE NOW. EVERYTHING IS AS IF BORN ANEW; THE LITTLE SHOWER HAS MADE ALL NATURE YOUNG AGAIN. . . . SAMUEL, WHAT ARE YOU HOLDING THE UMBRELLA ASIDE FOR?"—*Fliegende Blätter.*



A home run—Double F.

Fair play—The Black Hussar.

A drug on the market—Hood's Sarsaparilla.

Glee Club concert at Chickering Hall to-night.

The Juniors have begun "Das Lied von der Glocke."

The Yale Glee Club will soon give a concert in Boston.

The Junior chemists and miners are now at work on silver assaying.

Those who attend Prof. Gray's lectures are beginning to appreciate the fine points of the law.

F. E. Calkins, S. G. Bates, and M. F. Wright, of '89, have been admitted to the bonds of Theta Xi.

Two trusses have been removed from the gymnasium roof to give space for pole vaulting, etc.

The Boston League ball teams have been training for the last week or so in the Y. M. C. A. gymnasium.

The Harvard School of Chicago is preparing eleven students for Yale, and five for the Mass. Institute.

"A Tale of Woe" is on the programme for the Glee Club concert to-night. "Those who have tears to shed——"

There are no prettier audience-rooms in Boston than Chickering Hall, and when our Glee Club sings there the effect is fine.

The Whistling Club, J. B. Loewenthal, director, now meets regularly three times a week in the industrial laboratory.

The Athletic Club has voted \$28 to buy two new tug-of-war belts. The tug-of-war has a firm hold at the Institute.

H. W. Clark, '87, and E. O. Jordan, of '88, were elected members of the K₂S Society recently.

The class in locomotive engineering, with Prof. Lanza, inspected the Rhode Island Locomotive Works, March 20th.

The *Herald* of March 17th contained a somewhat involved account of mechanical engineering, as taught at the Institute.

The class in ventilation recently visited some of the Harvard buildings, including Sever Hall and the Law School.

Prof. Otis has kindly provided the Juniors with printed lists of German books and periodicals best suited for practice-reading.

Great applause was given at the '87 class meeting when confectionery and toys were read on the co-operative list.

Letters have been received from Dartmouth and Tufts Colleges, and Malden, asking for dates with the nine.

THE TECH editors will yet make a noise in the world. One of them has already produced the loudest explosion of the season in the analytical laboratory.

The K₂S met on the 19th at Young's, and elected Professors Drown, Nichols, Norton, and Pope honorary members. Messrs. Bruce and Russell read valuable papers.

The Institute team plays Harvard at Cambridge, April 17th, and in Boston April 21st, and has arranged to play the Boston league team on Fast Day.

The battalion is being instructed in guard-mounting. Why not make this of practical use by applying it to the protection of THE TECH exchanges, in the reading-room.

Twenty-five of the first-year students in the architectural department presented designs for a *porte-cochere*. First mention was awarded to H. C. Moore; second, to G. C. Shattuck; third, to——

Messrs. Prescott and Hill, of the architectural department, were so fortunate as to have their designs for a monumental bridge criticised by Mr. Chandler, of the firm of Cabot & Chandler.

Messrs. Borden, Burgess, and Neave, of '86, had planned to "cross the pond" on the ill-fated Oregon, this summer. Oliver Wendell Holmes and James Russell Lowell had engaged passage on the same steamer.

The Glee Club's concert at Revere, last week, Tuesday, was in part a benefit for the Unity Vestry fund. Charity should begin at home. Why don't the club devote the proceeds of its next concert to a coat-and-vest-ry fund?

As this is the first year that chemical philosophy has been taught the Junior chemists, the instructor has resorted to the original method of calling on each of the class to hand in a few sample questions to be used in making up the examination papers.

The Alpha Theta Chapter of the Sigma Chi Fraternity held its fourth annual banquet at Young's, March 20th. Tasteful *menus* invited and received careful attention. Toasts, proposed by Guy Kirkham, met happy responses at the lips of the following: Bros. Alexander, Currier, Wood, Taylor, Stebbins, du Pont, and Bardwell.

Eleven third-year chemists, accompanied by Prof. Norton and assistant, visited the works of the Boston Sugar Refining Company, at East Boston, on the fifth inst., and were shown through the establishment by the obliging superintendent. The party left the works full of sweet information, after having taken a complete course of sugar.

The Chessmen met last week, Tuesday, at Young's, and voted to call the society the M. I. T. Chess Club. Messrs. F. J. Wood and J. C. Smith were admitted. Mr. Wrightington's resignation as vice-president was accepted with regrets, and Mr. Lane elected to the vacancy. After appointing a committee to consider and report on proposed changes in the playing rules of the club, the members adjourned to the tables.

A number of college professors recently met in New York and formed the American Economic Association. The object of the society is to promote among thinking men a more careful study and a better understanding of the eco-

nomic problems, and especially those in which labor is involved. Among those connected with it are Francis A. Walker of the Mass. Institute of Technology, Pres. Adams of Cornell, Prof. Ely of Johns Hopkins, and Prof. James of the University of Pennsylvania.—*Yale News*.

Giles Taintor, at a meeting of the class of '87, March 23d, made an extended report upon the formation of an M. I. T. co-operative society. The report stated that various city firms, including toy-dealers, wine-merchants, and paper-hangers, had agreed to give a liberal discount to all members of such a society until the first of April, 1887. On motion, the president appointed Messrs. Taintor, Banes, and Wakefield a committee to carry on arrangements toward the formation of a co-operative society, and to interest the other classes in the same.

A largely attended mass-meeting organized as an M. I. T. Co-operative Society, last Saturday, in Room 15. The constitution presented by the committee from '87 was unanimously adopted, and under its provisions the following officers were elected: President, Giles Taintor, '87; Vice-President, F. W. Hobbs, '89; Secretary, W. J. Banes, '87; Treasurer, F. M. Wakefield, '87; Directors, Locke, '86, Shepard, '87, Dearborn, '88, Badger, '89, Bullard, S. of D., Reed, S. M. A., and from the Faculty, President Walker. The foregoing constitute the management of the society.

M. Dummer, a Boston inventor, has recently patented and placed on the market an article which promises to be of great advantage to architects, engineers, and others who are called upon to do a large amount of draughting. His invention consists of a stand which will hold firmly and securely any sized drawing-board, at the same time allowing the board to be moved, not only up and down, and about a vertical axis, but also to be revolved *in the plane of its inclination*, so that whatever side of the board the draughtsman brings toward him for convenience, the drawing remains at the same inclination.

There has been considerable talk in the papers to the effect that Dartmouth's withdrawal from the intercollegiate league was

caused by the obstinacy of Yale in regard to the arranging of games. The facts of the case, as stated by Mr. Phillips, captain of the Harvard nine, who was present at the convention, are as follows: Yale, with Harvard, agreed to play in Hanover, if Princeton would play Dartmouth either in Hanover or on neutral ground. Princeton was unable to enter into such an agreement, on account of Faculty regulations concerning absences. Hence, Dartmouth withdrew, and not because, as the papers stated, of obstinacy on the part of Yale.

Last Friday a dozen Junior chemists visited the extensive works of Messrs. Curtis Davis & Co., the manufacturers of "Welcome," "Unequaled," and other popular brands of soap, at Cambridgeport, and made an exhaustive inspection under the obliging guidance of Mr. Mellen, '84, the superintendent. The party was informed that this firm, which employs about fifty hands, consumed, besides large amounts of fat from other sources, all the grease from most of the Boston hotels—a statement apparently corroborated by the odor. Two hundred thousand seventy-five pound boxes are turned out weekly, and, as may be imagined, the opportunities for learning about practical soap-making were most satisfactory to the visitors.

Those interested in base-ball called a mass meeting of the students in Room 15, Rogers, March 24th, to consider the desirability of joining an inter-collegiate base-ball league with Dartmouth, Columbia, University of Pennsylvania, and Wesleyan. Mr. Currier, manager of the team, stated that Dartmouth, the prime mover in the scheme, had withdrawn, owing to the lateness of the season, and after some discussion in regard to expenses, etc., it was voted not to join such a league. It was shown, however, that with proper financial support it would be possible to arrange games with the best college teams. If the candidates for places on the nine will practice and train faithfully, and if the students in general will take an active interest in the matter, there is no reason why the Institute should not, this year, make a record of which to be proud in our national game.

THE COLLEGE WORLD.

HARVARD. The Hasty Pudding Club will present "Papillouetta" in their theatricals to be given in New York and Boston, about April 10th, for the benefit of the University crew.—There are fifty-three student organizations here.—John E. Thayer, '85, has given \$15,000 to the college to make a permanent fund to pay for the publication of papers on political economy.—Harvard has a man training for each event in the Mott Haven games, and the prospects are that she will capture the cup again this year; in which case she retains it for good, as she will have filled seven of its fourteen spaces.—At the meeting last Saturday the Ball Nine, Foot-Ball Eleven, University Crew, Lacrosse Team, and Mott Haven Team, gave very interesting exhibitions in the various ways they train during the winter.—It looks as though '88 would win the class race.—The D. K. E. sophomores will give public theatricals in Union Hall, Saturday, April 3d, for the benefit of the crew.—There will be class games in base-ball this year.—'87 again won the pennant for the third time, winning ten events in the three meetings.—'88 won the championship in the tug-of-war for the second time.—Clark's record of five feet nine inches, made at the third meeting, in the running high jump, is the best ever made in the Hemenway Gymnasium.—The yearly expenses of the gymnasium are about \$10,000.—*Ex.*

YALE. Bremner led the base running in the College Association last year, making eighteen runs from eight base-hits.—Professor Richards in estimating the athletic subscriptions at Yale, placed the average amount given by each man at \$15.—The Yale Glee Club will sing in Boston, April 9th.—Out of every hundred freshmen that enter Yale seventy-five graduate, and at Harvard seventy-four.—There is considerable interest being taken at present in lacrosse, and it is probable Yale will re-enter the Intercollegiate League, and also contest for the Oelrich cup.—About \$7,000 have been obtained toward the erection

of the new gymnasium.—Twenty-one St. Paul's men are expecting to take the entrance examinations here next summer.—Yale has presented Andover with two eight-oared shells.—The first Yale paper was founded in 1806, and since then twenty-eight papers have been published by the students.—Sheffield contains two hundred and fifty-six students.—All the exercises now end at 4 P. M. This gives more time for the athletic teams to practice.—There are twenty-seven men trying for the lacrosse team.—There are twenty Alumni Associations of Yale.

PRINCETON. Dr. McCosh has averaged ten hours study per day throughout his professional life.—The Foot-Ball Association is now governed by the President, Treasurer, and Captain.—Princeton has organized a Cricket Club.—The Scientific School has received the largest Holtz Electric Machine in the world.

DARTMOUTH. The students have chosen Secretary Lamar to deliver the commencement address.—The Handel Society of Dartmouth has offered a prize of \$25 for the best Dartmouth song.—Twelve men are training for the Mott Haven Games.

IN GENERAL. The following are the members of the Intercollegiate Base-Ball League: Harvard, Yale, Princeton, Amherst, Brown, and Williams. The umpires are Dutton, Donovan, and Grant. The Spalding League ball will be used for all championship games.—The annual tournament for the Oelrichs cup at present held by Harvard will occur on Decoration Day.—Page, of the Un. of Penn., the champion jumper, attributes his success to bicycling.—Columbia has a man training for all the events in the Mott Haven games except two.—Princeton won the Mott Haven Cup in 1876; Columbia in 1877, 1878, and 1879; Harvard has had it since 1880.—The Tufts College Foot-Ball debt amounts to eighty-seven dollars.—\$1,850 was raised for the Williams College ball nine within one hour.—The new *Delta Psi* house at Williams was dedicated March 15th. It is considered the finest of its kind in the country. Exeter has prepared 5,000 students for college.



MEMORIES.

She—I gave him a rose last night at the ball,
As we sat on the stairs in the dim-lighted hall,
Where one shaded lamp made a soft, dreamy glow,
And the music, like incense, breathed up from below.
For his love-lighted eyes looked so deep into mine,
That I hadn't the power, nor the wish, to decline.

He—She gave me a blood-red rose last night,
As we sat on the stairs, in the mystic half-light.
I remember how soft were her eyes, and how fair
Was her beautiful face, with its crown of bright hair,
And her round, dainty throat, with its necklace of pearl—
But, hang it! who under the sun was the girl? —*Life*.

Fond father (just arrived in town): "What time is it, my son?"

Dutiful son (feeling furtively in his watch-pocket): "Oh!—ah—yes, certainly—it is now,—Oh! I forgot; it is now at the jew-ellers."—*Courant*.

A CONFIDENTIAL APPLICATION.

Mamma: "Come, Ivy, and say your prayers."

Ivy: "Please, Dod, make Ivy a dood little girl, an' don't tell mamma I stole the cake."—*Puck*.

Ancient Brute: "Er, excuse me—but does my open window trouble you?"

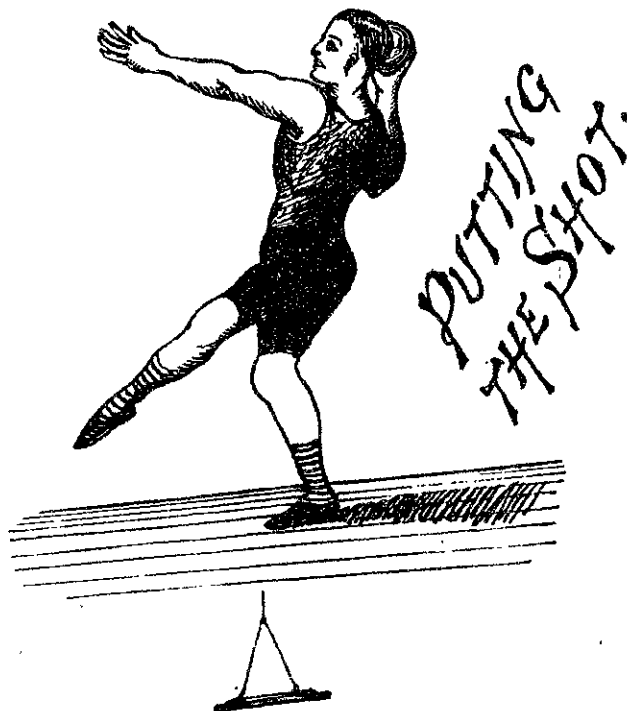
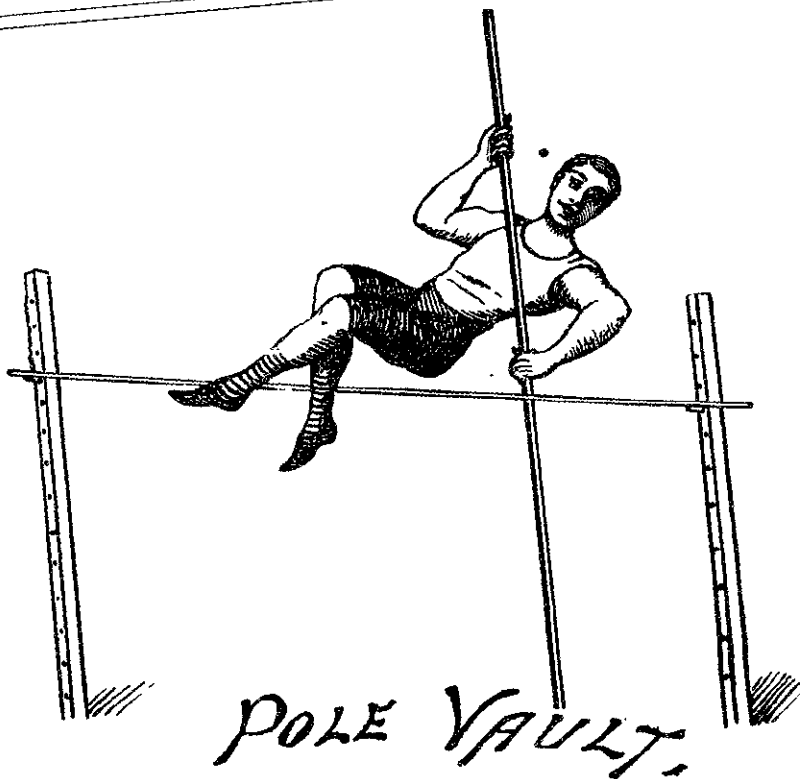
Lady Passenger: "Oh, thank you! I was feeling it a little."

Ancient Brute: "Well, I wouldn't run any risk of catching cold. There are some empty seats forward."—*Harper's Bazar*.

He: "Is your pa in, Sadie?"

She: "Yes; but you needn't be afraid to come in, for he has just gone up stairs to wind his Waterbury watch, and he won't be down for three hours, at least."—*Boston Courier*.

The following epitaph was placed on the tombstone of an old fireman: "He has gone to his last fire."



OUR ARTIST'S VISIT TO THE GYMNASIUM. WHAT HE SAW THERE.

A LA MODE.

"A rumor to my ears has come
That you, to whom I am engaged,
Low emigrants descended from,"
Said Miss Bon Ton, quite overcome,
Her proud, blue blood sorely outraged:

"'Tis true that such is my descent,
But rumor just one thing ignores,
Which much enhances the event:
In the May-Flower to Plymouth went,
As emigrants, my ancestors." — *En.*

Servant Girl (who has just admitted a caller):
"Mr.—Mr.—, well, I can't remember his name,
is in the reception-room below."

Lady of the House: "Well, what's the gentleman's name?"

Servant: "And sure, it's the gentleman I danced with at the firemen's ball, on Monday evening."

He never called again.— *Era.*

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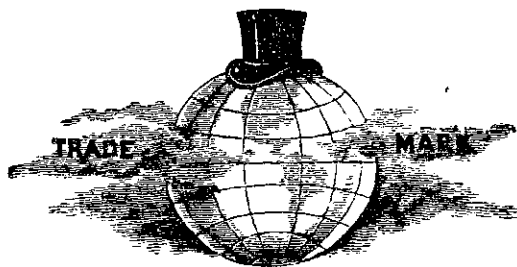
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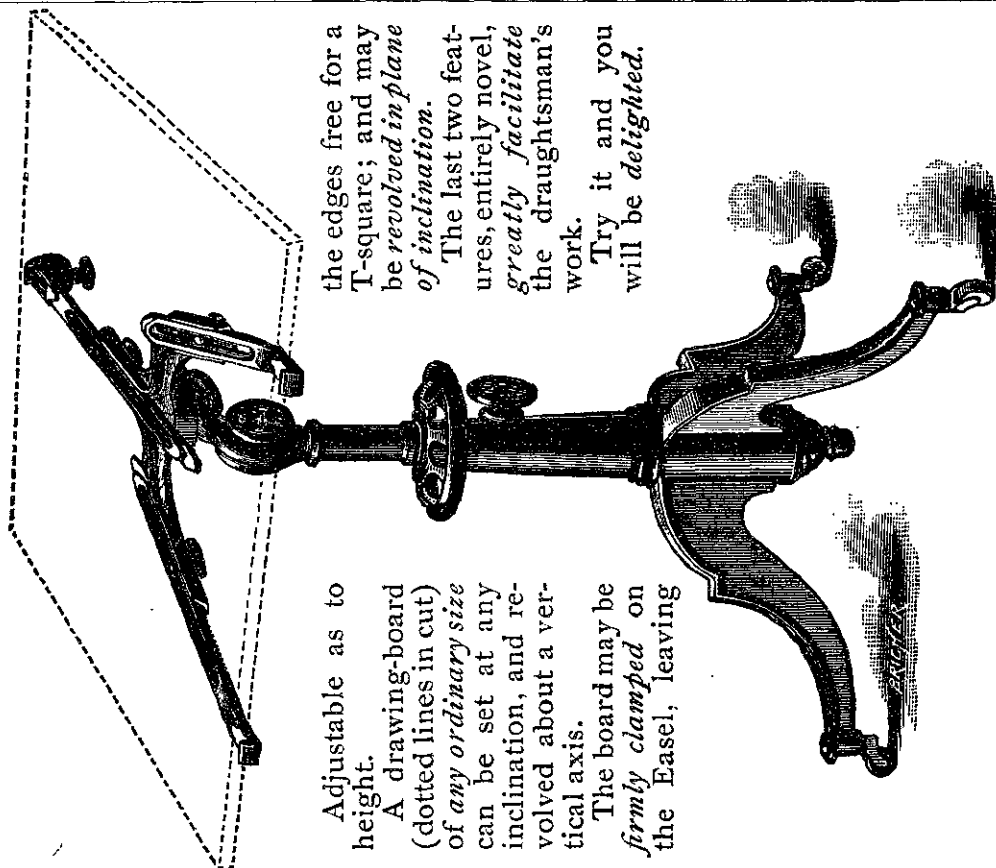
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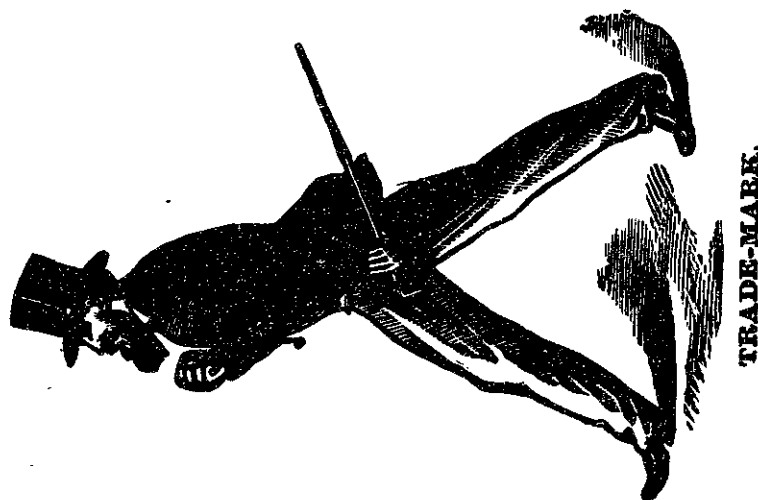
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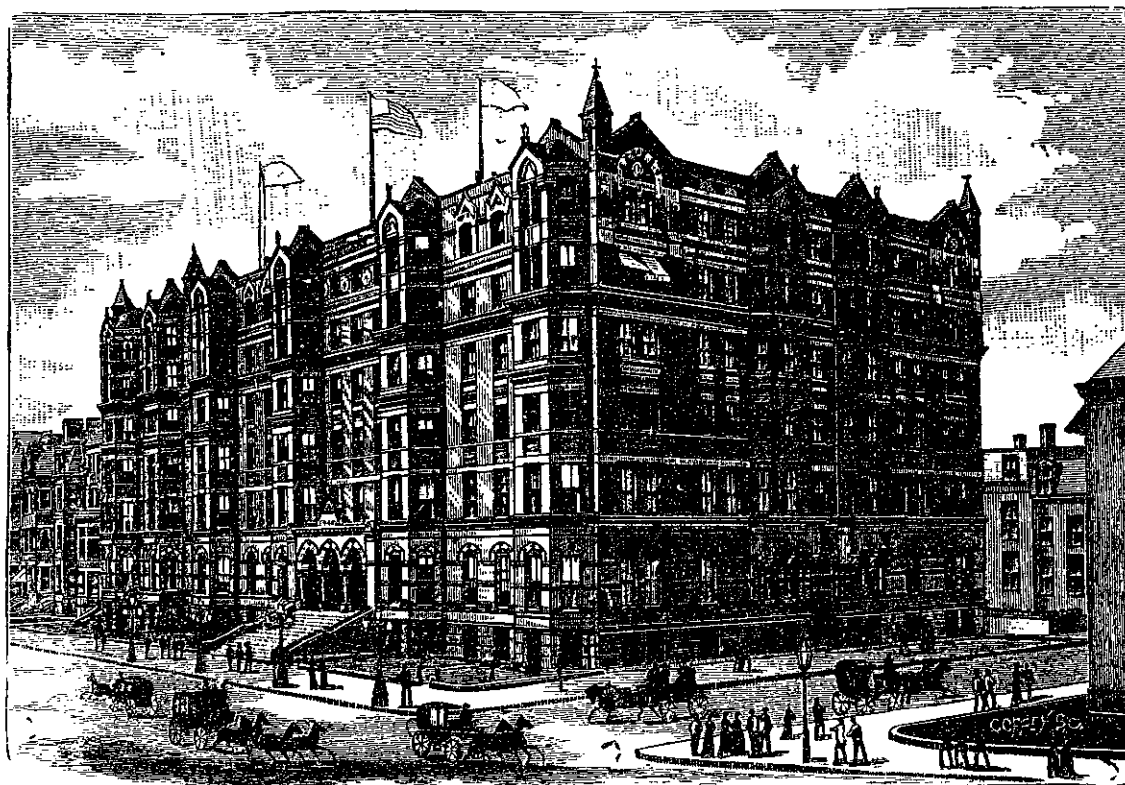
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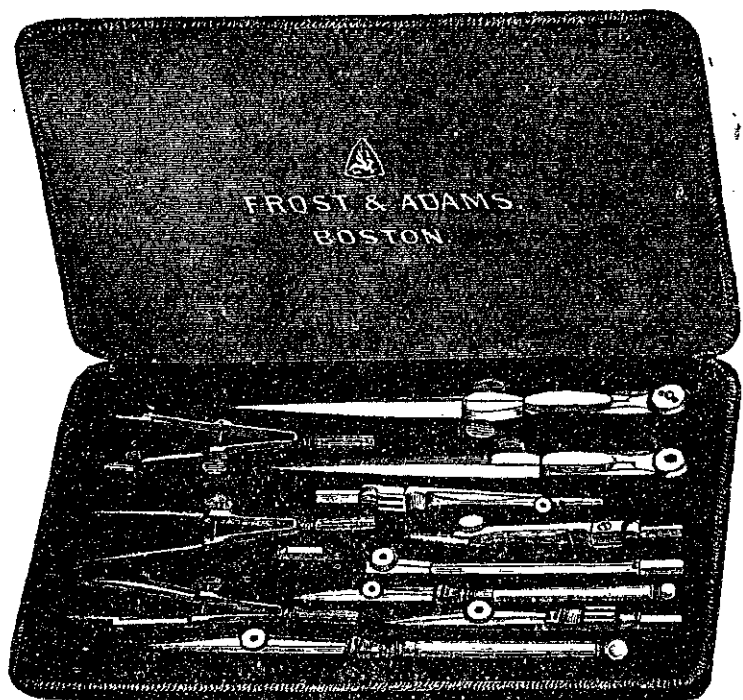
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